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March 26, 1993

Donna R. Searcy
Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554

Re: Ex Parte Contact in CC Docket No. 92-237

Dear Ms. Searcy:

On March 25, 1993, Dr. Lee L. Selwyn on behalf of the Ad Hoc Telecommunications Users Committee and the County of Los Angeles, and the undersigned, on behalf of the Ad Hoc Telecommunications Users Committee, met with representatives from the Common Carrier Bureau and the offices of Commissioner Duggan and Chairman Quello to discuss concerns regarding the North American Numbering Plan. The substance of the discussions are reflected in the attachments hereto.

Sincerely,

James S. Blaszak

JSB/jas
Attachments

No. of Copies rec'd 0+1
List A B C D E

A new telephone service called CIRCUIT 9 is available from New England Telephone. CIRCUIT 9 provides the same features as 800 and 900 services and more. *An important feature of CIRCUIT 9 service is that when you call a CIRCUIT 9 business customer, the number of the telephone from which you call is revealed to that customer.* The following answers some questions you may have about CIRCUIT 9 service:

WILL MY TELEPHONE NUMBER BE REVEALED ON ALL CALLS TO CIRCUIT 9 SERVICE?

Yes. Your telephone number will be revealed on any call completed to a business customer with CIRCUIT 9 service. All CIRCUIT 9 customers will have telephone numbers with one of the following prefixes or exchange codes:

920-XXXX	General Business Applications and Information Services
900-880-XXXX	General Business Applications and Information Services
554-XXXX	Adult Information Services

The business receiving your number may only use this information to bill you for the call or products and services you purchased during the call. The business may also offer you products and services similar to those previously purchased by you from that business. The number may not be used for any other purpose without your written permission.

WILL I BE CHARGED FOR CIRCUIT 9 CALLS?

With CIRCUIT 9, the business you are calling may decide to pay for your call. If the business decides not to pay for the call, you will be charged by New England Telephone at the applicable New England Telephone usage rate.

HOW WILL I KNOW IF I'M BEING CHARGED FOR CALLS TO CIRCUIT 9 SERVICE?

A separate charge for information service programs, provided by the business you are calling, may apply on CIRCUIT 9 calls. You will be informed of the amount of that charge when you call the CIRCUIT 9 number if the minimum charge for the call exceeds $1.00 or the charge for any minute is over $1.00. If that charge is less than $1.00, you may not know you are being charged for the call until you receive your monthly telephone bill. Charges for CIRCUIT 9 Service will be separately identified on your New England Telephone bill.

CAN I BLOCK MY TELEPHONE NUMBER FROM BEING REVEALED?

If you complete a call to a CIRCUIT 9 number, your telephone number will be revealed to the business you are calling. However, New England Telephone has a service called Selective Blocking Service that will prevent the completion of calls from your line to numbers beginning with 920, 900-880, or 554. Since you will be unable to call these CIRCUIT 9 numbers, your telephone number will not be revealed.

WHAT ARE MY BLOCKING OPTIONS?

One party residence and single-line business customers may choose to have "Selective Blocking Service" (SBS) to control or eliminate access to these numbers. The SBS blocking options are:

Comprehensive Blocking (Option 1) which currently blocks access to Information Delivery Service (IDS) 976 and 940 (Adult) exchanges, the 550 (Group Bridging Service) group conversation talk lines and all 900-XXX-XXXX Information Services. The CIRCUIT 9 exchange codes, 920 and 554, are now being added to this option (900-800 is already included). If you choose this option, it will not be possible to access any of these numbers from your telephone line.

Partial Blocking (Option 2) which currently blocks access to the 940 IDS Adult exchange, the 550 (Group Bridging Service) group conversation talk lines and all 900-XXX-XXXX Information Services. The CIRCUIT 9 Adult Information Service code, 554, is being added to this option (900-880 is already included).

CAN I RESTRICT ACCESS TO THE 554 (ADULT) EXCHANGE?

Access to the 554 (Adult) exchange is automatically blocked by New England Telephone. Any customer seeking access to the 554 exchange must give us written authorization to remove the blocking from his telephone line. The request may be sent to:

New England Telephone
Room C218
5 Winslow Street
Arlington, MA 02174

HOW CAN I ORDER SELECTIVE BLOCKING SERVICE?

You may select an SBS blocking option by contacting New England Telephone. If you are a Residence customer, contact our Customer Response Center, weekdays between 8:30 a.m. and 5:00 p.m., at 1-800-555-5000, ext. 218. If you are a Business customer, call the number listed at the top of page one of the "Itemization of Account" pages of your monthly telephone bill.

ARE BLOCKING SERVICES AVAILABLE FOR ALL MULTI-LINE BUSINESS CUSTOMERS?

Yes. Multi-line business customers wishing to block access to these services can also order Selective Blocking Service, at various charges depending upon the customer's type of telephone service. Multi-line business customers may also consult their equipment vendors about blocking capabilities.

WILL I BE CHARGED FOR ANY OF THE BLOCKING SERVICES?

Residence and single-line business customers will not be charged when they make their initial blocking selection. Residence customers will be charged $5 and Business customers $10 for any subsequent blocking changes.

Multi-line Business customers can obtain rate information about blocking by calling New England Telephone at the number listed at the top of page one of the " Itemization of Account" pages of your monthly telephone bill.

WHAT IF I HAVE SELECTIVE BLOCKING SERVICE TODAY?

Any customer with Comprehensive Blocking (Option 1) today will automatically be denied access to all CIRCUIT 9 exchange codes, 920, 900-880 and 554. Any customer with Partial Blocking (Option 2) today will be denied access to the 900-880-XXXX and 554 (Adult) codes but will have access to CIRCUIT 9 telephone numbers with a 920-XXXX exchange code.

WHAT HAPPENS IF I DO NOTHING ABOUT BLOCKING?

Unless you already have Selective Blocking Service on your line, you will automatically be denied access to the 554 (Adult) exchange code but will have access to CIRCUIT 9 numbers beginning with the 920 and 900-880 exchange codes. You will then be able to call CIRCUIT 9 business customers and the telephone number of the line from which you are calling will be revealed to these businesses.

WHAT IF I HAVE BLOCKING FOR CALLER ID SERVICE?

In areas offering PHONESMART® Service, per call or line blocking for Caller ID will not prevent your telephone number from being revealed to CIRCUIT 9 business customers.

New England Telephone
A NYNEX Company

MA 2/93

IMPORTANT ANSWERS ABOUT CIRCUIT 9℠ SERVICE FOR ALL CUSTOMERS

This is an important notice. Please have it translated.
Este é um aviso importante. Queira mandá-lo traduzir.
Este es un aviso importante. Sírvase mandarlo traducir.
ĐÂY LÀ MỘT BẢN THÔNG CÁO QUAN TRỌNG
XIN VUI LÒNG CHO DỊCH LẠI THÔNG CÁO ẤY
Ceci est important. Veuillez faire traduire.
本通知很重要，请将之译成中文。
នេះគឺជាដំណឹងល្អ សូមចេញបកប្រែជូនផង

AD HOC TELECOMMUNICATIONS USERS COMMITTEE
COUNTY OF LOS ANGELES, CALIFORNIA

NORTH AMERICAN NUMBERING PLAN

Issues and Concerns

March 25, 1993

Numbering policy principles

1. Uniformity.

2. Simplicity.

3. Uniqueness of all NANP numbers.

4. All geographic NANP numbers should be dialable from any NANP access line.

5. Centralization of NANPA responsibility.

Numbering policy principles

6. Reflect industry pricing and rating practices.

7. Numbering and service pricing policies should be independent and transparent with respect to one another.

8. Numbering policy should provide no systematic competitive advantage or disadvantage to any

Numbering policy issues

"Interchangeable" NPA codes:

- Present enormous costs and ongoing administrative burdens for users

- A standard nation-wide convention for distinguishing between "local" and "toll" calls should be adopted.

Local call, home NPA	7 digits	NXX-XXXX
Local call, foreign NPA	10 digits	FNPA-NXX-XXXX
Toll call, home NPA	11 digits	1-HNPA-NXX-XXXX
Toll call, foreign NPA	11 digits	1-FNPA-NXX-XXXX

where HNPA = 3-digit code for Home NPA;;
FNPA = 3-digit code for Foreign NPA.

Numbering policy issues

NUMBERING PRINCIPLES FOR THE BALANCING OF STAKEHOLDER INTERESTS

FNF 93-060

a position paper submitted by the

Ad Hoc Telecommunications Users Committee

and the

County of Los Angeles, California

prepared by

Dr. Lee L. Selwyn
Susan M. Baldwin

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(617) 227-0900

Bellcore "Future of Numbering Forum"
McLean, Virginia • March 16-18, 1993

Introduction

This paper has been prepared on behalf of the Ad Hoc Telecommunications Users Committee ("Ad Hoc") and the County of Los Angeles, California ("LA"). It outlines key user/consumer concerns regarding present and future NANP policies. Both of the sponsoring parties have been actively involved in this issue. Ad Hoc submitted comments in CC Docket 92-105 (the "N11" *NPRM*) and in CC Docket 92-237 (the NANP *NOI*). LA submitted comments to Bellcore on the January, 1992 *Proposal on the Future of Numbering in World Zone 1*. Through these submissions, both of these parties have expressed their strong opposition to the continued role of Bellcore and of the dominant local exchange carriers

the NANP and the individual NPAs, but will focus instead solely upon numbering issues, policies and practices for the immediate and long-term future. Accordingly, references to "NANPA" herein should be construed as generic in nature (i.e., the reference is to whomever will *ultimately* assume this responsibility), and not to the current Bellcore/BOC NANP administration organizations.

Numbering and dialing pattern principles

Number and *dialing pattern* are two highly interrelated, yet distinct issues. Future "Numbering" policies must embrace both concerns. Ad Hoc/LA propose the adoption of the following specific policy guidelines:

1. *Uniformity.*

   The increasingly widespread use of automated equipment capable of "dialing" telephone numbers (e.g., alarm devices, point-of-sale terminals, automatic dialers, etc.) makes it essential that numbering and dialing protocols be uniform and standardized at least throughout the United States, if not the entire NANP. Local variations should generally be permitted only through waiver approved by NANPA.

2. *Simplicity.*

   The numbering plan and dialing protocols should be simple and straightforward. In general, the most frequent types of calls should be dialable with the fewest number of digits (e.g., "local" calls should require fewer digits than "toll" calls; calls within WZ1 should require fewer digits than calls to points outside of WZ1; etc.).

3. *Uniqueness of all NANP numbers.*

   All NANP numbers should uniquely identify one and only one network address. Numbers assigned to individual members (as distinct from *services*) should not be carrier-specific. (E.g., the assignment of the same '700' number by different carriers to different customers should not be permitted.)

4. *All geographic NANP numbers should be dialable from any NANP access line.*

   Numbers should not be restricted to access from only a specific geographic region (e.g., the HNPA, the LATA, the LEC service territory, etc.).

5. *Centralization of NANPA responsibility.*

NANPA should be responsible for *assignment* of all geographic and non-geographic NPA and SAC codes. NANPA should be responsible for establishing and for *enforcing* rules and policies with respect to assignment of CO codes within geographic and non-geographic NPAs. Exceptions to standard rules and policies for CO code assignments may be granted by NANPA upon request of any interested party only through formal waiver process, in which opposing views can be submitted and considered.

6. *Reflect industry pricing and rating practices.*

Numbering and rating of individual calls are highly interrelated. Distinctions are made between "local" and "toll" calls, between "intrastate" and "interstate" calls, between "POTS" services and "enhanced" services and, potentially, between landline and mobile services. Numbering and dialing patterns should reflect distinct rating differences in a manner that is easily recognizable to consumers and to automatic equipment.

7. *Numbering and service pricing policies should be independent and transparent with respect to one another.*

Number assignments should not be tied to specific services, nor should the pricing of individual services be influenced by numbering policies. Customers should not be required to accept a service (e.g., switched access) that is not otherwise necessary merely to obtain a particular type of number (e.g., a nation-wide 7-digit number dialable on a 7-digit basis from within any geographic NPA). Conversely, prices of end user services should not be materially influenced by numbering policies (e.g., an area code split may affect the pricing of long distance calling plans that offer discounts to calls placed to one or to a designated number of specific area codes).

8. *Numbering policy should provide no sustematic competitive advantage or disadvantage to any stakeholder.*

Assignment of numbers or dialing protocols should convey no specific competitive advantage nor impose a specific competitive disadvantage upon any party. Special types of numbers whose supply is particularly limited (e.g., "short" numbers) should never be assigned exclusively to any one entity on an exclusive basis.

9. *Abbreviated dialing should be customer-specified, not provider-specified.*

Abbreviated dialing patterns (e.g., the use of 1+ to identify an interexchange carrier, N11 to identify an information service provider, etc.) should be specified by the individual customer on a *presubscription* basis. No abbreviated dialing protocol should be assigned exclusively to any individual service provider or carrier.

10. Economic effects of NANP policies and actions must be considered in NANP decisions.

All proposed changes to or modifications in NANP structure, dialing protocols, area code assignments and splits, CO code designations, and other significant NANP events and actions, shall give full consideration to the costs, administrative burdens, business interruptions and other economic impacts that would be imposed upon all stakeholders. In general, NANPA will undertake to develop and adopt policies that minimize the combined economic impact on all stakeholders. NANPA may consider and adopt proposals which, in order to minimize aggregate impact, may involve the compensation of adversely-impacted stakeholders by others who would be less impacted — or even derive net benefit — from a particular policy initiative.

Specific issues regarding numbering policies

The foregoing principles offer a framework within which specific numbering/dialing protocol issues may be considered. Although far from exhaustive, the following issues are of particular concern to Ad Hoc/LA.

Distinguishing between "local" and "toll" calls.

Ad Hoc/LA believe that the 1+ convention should both be retained and made more consistent as an unambiguous indicator that the call being placed will be subject to toll charges. While the use of 1+ for this purpose has eroded in recent years (particularly since the introduction of interchangeable CO codes in a number of NPAs beginning in the early 1980s), current proposals relating to interchangeable NPA code ("INPA") implementation would virtually eradicate the use of 1+ for toll/local differentiation. Ad Hoc/LA believe that 1+ can *and should* be retained for this purpose.

The 1+ convention provided a convenient means for consumers to ascertain whether calling a particular number would entail a toll charge, and also afforded administrators of PBX systems a simple and consistent algorithm for implementing toll restriction in their systems. Under INPA, however, consumers will not be able to determine the charging status of a particular call unless they look up the code in the local telephone directory;[1] analogously, a PBX will not be able to identify toll calls unless it has been modified to perform this type of screening function *and* maintains an up-to-date table of local (or toll) central office codes. Neither of these will happen without cost and administrative burden to the PBX manager. AT&T has recently quoted prices for modifying its PBX products at between a few hundred dollars to well over $10,000, and this does not include the costs

1. That, of course, assumes that the code will be found there. Codes added after the current directory was

of *maintaining* code tables on an ongoing basis over time. A recent study conducted by the British Office of Telecommunications put the cost of premises equipment modifications to accommodate the forthcoming UK numbering change at nearly £200-million, which translates into more than $1-billion after accounting for the size differences of the US and the UK.

In its Comments filed in CC Docket 92-237, Ad Hoc offered an alternative to Bellcore's INPA plan that would make it possible to retain the 1+ prefix on toll calls and to exclude it on all local calls, even those which cross an NPA boundary. The present dialing pattern in use in the Washington, DC metropolitan area demonstrates the fundamental feasibility of such an approach. The key to this arrangement is *not to assign* as CO codes the same sequence of digits associated with either the home or any *adjacent* NPA codes for which local rate treatment applies, and to require that all *toll* calls placed within the Home NPA be dialed on an 11-digit (1-HNPA-NXX-XXXX) basis.[2] Thus, as long as the 202, 703 and 301 codes are *never used as CO codes* within the Washington, DC metropolitan area, stored program control central offices can readily identify calls to these NPAs as local inter-NPA calls without the need for a prefix '1'.[3] While the C&P Telephone Company has adopted this dialing pattern for the present time, it is *not* a recognized approach within the Bellcore NANP standard, and may well be abandoned by C&P in its implementation of INPA. Yet because decisions as to the efficacy of any particular *local* dialing pattern are generally addressed solely at the state PUC level, the potential usefulness of this approach, which would permit full and unambiguous retention of the 1+ prefix as an exclusive toll access digit, has never been formally considered as part of a national standard.

Ad Hoc/LA's proposal would not only alleviate many of the operational concerns engendered by the implementation of interchangeable NPA codes, it would actually

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2. Assignment of a nearby NPA code to a CO code is expressly discouraged so as to minimize the incidence of mis-dialed calls. *See*, Bellcore, *BOC Notes on the LEC Networks - 1990*, p. 3.8. Nevertheless, ETI has identified a total of six (6) situations out of the more than 48,000 NPA-NXX codes presently in use within the NANP in which a home or adjacent NPA is used as a CO code. These are confined to three New York City codes (212-516, 718-718 and 718-917) and three Los Angeles codes (213-714, 818-818 and 818-909). Indeed, the presence of the '818-818' code pair poses a particular problem, in that it potentially creates an ambiguity on intra-NPA 0+ calls, which require the full 11-digit dialing pattern. ('718-718' is not a problem in this regard only because there are no toll routes within the '718' NPA, although a 0+ call would still likely require the full 11 digits.) That cases such as these are present at all testifies to the serious mismanagement of the NANP under the Bellcore/LEC stewardship. In any event, these few codes can be reclaimed, and the impact upon the users of these six relatively new CO codes would be minimal by comparison with the benefit for all NANP users that would result from a uniform and coordinated toll/local identifier.

3. Thus, when a Washington, DC customer dials 408 without a 1+ prefix, the central office will interpret that as a local CO code. But when the customer dials 703 without a 1+ prefix, the central office will interpret that code as the NPA for northern Virginia.

specific premium services creates enormous customer confusion and unwanted or unexpected charges, and poses formidable problems in administering dialing and toll restriction arrangements and in managing PBX/Centrex system operations for business and government organizations with multiple locations in different NPAs and/or operating company territories.

One of the largest causes of the variation in NANP implementation and the lack of standardization is the fragmentation of responsibility for NANP administration. At a minimum, strict rules and standards should be established for the assignment of *non-geographic* NXX codes *within* geographic NPAs and/or for HNPA dialing on a 7-digit basis. The use of NXX CO-type codes for services involving premium charges[6] should be expressly prohibited except where specific, uniform codes are established on a national or NANP-wide basis for this purpose.

Standardization in numbering and dialing.

Because there is no central administration of number assignment *within* most NPAs, the individual LECs with NPA administrative responsibility possess - and have exercised - considerable flexibility with respect to CO code assignment. For example:

- Only a handful of CO codes are afforded standard use across all NPAs. These are generally limited to 555 (Directory Assistance), 950 (Feature Group B), 958 and 959 (test codes), and 976 (pay-per-call). Individual LECs may assign special functions to other CO codes but there is no requirement that this be done on a uniform basis.

- Numerous "mixed use" CO codes have been established combining POTS, cellular, paging, DID and other numbers. Opportunities for special "sent-paid" nonpresubscribed calling access to, for example, cellular and paging services, long desired by those industries, have thus been largely precluded by a lack of easily identifiable use-specific CO codes and/or numbering/dialing protocols.

- Codes and numbers may be arbitrarily held back for special "premium" status involving additional charges. In some cases, LECs may offer a LATA-wide or

6. This would include pay-per-call information/enhanced services, sent-paid cellular/paging/PCS type calls, and other special services whose numbering facially conforms either to the 7-digit HNPA or 10-/11- digit full NANP format.

company-wide 7-digit telephone number in conjunction with a pay-per-call type of information service access arrangement, for which a premium charge will apply.[7]

- There is a wide variation in dialing pattern from LEC to LEC for intra- and inter-NPA local and toll calling.

Continued fragmentation of NANP and NPA administration must be replaced by either a single NANP administration function embracing both NPA and CO code assignment or, at the very least, a uniform set of standards and rules must be established *and enforced* if LEC administration of individual geographic NPAs is to continue.

Competitive advantages flowing from number assignments.

In administering code and number assignments within individual NPAs, LECs often favor their own needs over those of their competitors or others. Moreover, while LECs rarely impute charges for number assignments to their own services, they usually impose number use charges upon other entities. For example, LECs typically do not impute a number charge for Centrex service, whereas they do apply such charges for DID services furnished by the LEC to a user of a competitively-provided PBX. LECs may be far more willing to reserve numbers and codes for their own use, but typically resist, or impose substantial charges to satisfy, such reservation requests received from other entities and from end users.

The general concern regarding preemptive advantage to LECs also extends to other NANP stakeholders. The "N11" controversy is a case in point. Here, certain individual providers have sought preemptive access to an extremely limited supply of clearly advantageous "short" numbers which, if assigned to them, would preclude use of these numbers by the LECs' competitors. To be sure, certain types of numbers are more easily

Number portability clearly offers many important service opportunities and will likely contribute to a more competitive marketplace. However, notwithstanding its merits as an abstract matter, uniquitous local number portability will not happen without significant cost, and the FCC should not authorize major technological commitments or adopt policies with significant costs and impacts without a comprehensive and accurate assessment as to their magnitude. Ad Hoc/LA note, for example, that the Commission's initial adoption of 800 number portability expressly relied upon explicit BOC representations as to the almost insignificant costs of its implementation:

> All of the BOCs filed projected revenue requirements for data base 800 access service. According to these projections, *the total interstate annual revenue requirement for 800 access service for the seven BOCs combined will be approximately $20 Million.*[10]

Moreover, even after it proposed, and subsequently imposed, certain additional requirements upon the BOCs with respect to coverage, post-dial delay, and other matters, no material cost impact beyond the previously-cited finding was identified by the Commission.[11] Now, however, on the eve of actual implementation of 800 data base access, the BOCs seek to revise — and by a substantial amount — the cost assessment upon which the Commission's adoption of 800 number portability had been predicated. Extrapolating from a submission recently made to the FCC by Pacific Bell,[12] the cost of 800 database access is now being portrayed as amounting to more than $2-billion through

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10. *Provision of Access for 800 Service*, CC Docket No. 86-10, 4 FCC Rcd 2824 (1989). Emphasis supplied, footnotes omitted.

11. *Id.*, *Recommendation and Second Supplemental Notice of Proposed Rulemaking*, 6 FCC Rcd 5421 (1991).

12. *See* Pacific Bell *ex parte* filing dated December 28, 1992, in CC Docket 86-10, filed in support of the Company's position that the costs it incurs in implementing the 800 Database Service should be treated as exogenous Z-adjustments under the Commission's Price Cap system. In that filing, Pacific asserted that "[t]he SS7 investment and expense associated with the FCC mandated implementation of 800 Database Service will reach $353M [million] by 1995. These costs have been incurred by Pacific in order to deploy an SS7 network that meets the Commission's access delay standards. In fact, Pacific has developed equipment and facilities specifically for 800 Database Service which offer capabilities previously unavailable in the network." Previously, that same RBOC had given this Commission a considerably lower assessment of 800 Database costs: "*Dedicated 800 Data Base costs are relatively minor.* The Commission has asked for comments concerning the projected costs of implementing and deploying 800 Data Base Service. The investment associated with the SCPs and the SMS are specific to 800 Data Base Service. The total net investment for the SCPs and the SMS is

1995.[13] With nearly one hundred times as many local and toll calls directed to ordinary NANP numbers as those dialed to '800' numbers, the price tag for "local number portability" could, on the basis of the BOCs' latest figures, easily top $20-billion.

Significantly, proposals for local number portability are not demand driven in any meaningful sense. The actual extent of consumer interest in "portable" non-800 telephone number services is not known at this time,[14] and in any event the extent of such demand will certainly be influenced by price. There is no evidence that US consumers or business users want — or are willing to pay for — ubiquitous number portability at any price. Further, without comprehensive and accurate estimates of the total cost — to all sectors of the telecommunications industry — attendant to local number portability — there is no present means to determine that the benefits of ubiquitous number portability will exceed its costs, particularly for customers and applications where such an arrangement is not *per se* essential. Further, a distinction must be made between *geographic* portability (which specialized services like AT&T's "Easy Reach" and MCI's "Follow-Me 800" can support) and *provider* portability, in which a customer can change carrier without having to change telephone number. Indeed, despite the obvious interest of nascent local exchange competitors in this latter form of number portability, Ad Hoc/LA expect that their demand as well will be highly sensitive to price.

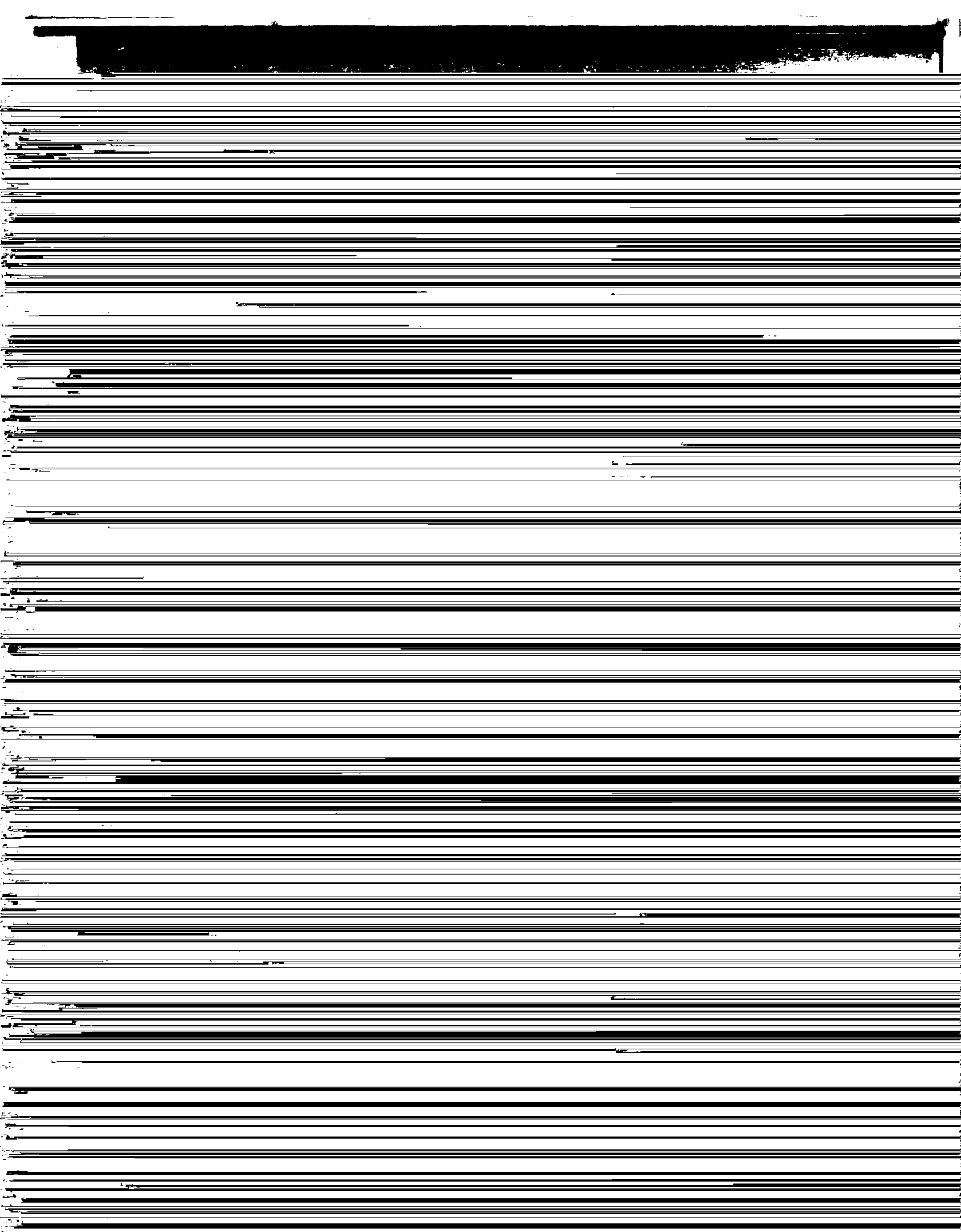
Indeed, to the extent that the desire for ubiquitous local number portability has already served to motivate INPA implementation and other fundamental NANP modifications,[15]

capability — ubiquitous number portability — the actual demand for which has never been demonstrated. If there is in fact a public demand for this new network capability, then that should be tested in the marketplace before costs are incurred and are unilaterally imposed upon telecommunications users.

While Ad Hoc/LA do not oppose efforts to consider accommodating portable and other non-geographic number assignments within an expanded NANP, they urge that a determination be made, *at the outset*, that the various NANP modifications being proposed and/or implemented at this time are driven by *bona fide* demands of the marketplace, and not merely by the strategic designs of the existing local exchange monopolies.

Conclusion

Ad Hoc/LA believe that the proliferation of stakeholders and the numerous and complex interactions between numbering policy and broader telecommunications regulation and policy issues require a far broader examination of the future of numbering than will be possible in a "Forum" such as this. Accordingly, while these parties intend to participate fully and to contribute constructively to the present discussions and deliberations, they continue to believe that specific, affirmative, *and expeditious* FCC action is mandatory, and that the mere existence of this "Future of Numbering Forum" not be used as a rationale for postponing affirmative FCC action.



UK national code change Customer Premises Equipment Implications

A report for the Office of Telecommunications prepared by 

First published 1992

Sir Bryan Carsberg, Director General of Telecommunications, announced on 5 September 1991 his agreement in principle to proposals from BT and Mercury for the implementation in 1994 of a new 10 digit numbering plan for the UK telephone network. The main feature of this change (to be known as the "National Code Change", or NCC) will be the addition to the area codes used in the fixed telephone network of the extra digit "1" after the initial "0".

OFTEL has commissioned this report from Ovum Ltd in order to provide information about the implications of the NCC for customer premises equipment. As well as assisting OFTEL and the PTOs in planning the detailed implementation of the NCC it is hoped that the report will be of particular value to users and manufacturers of customer premises equipment who will be affected by the change.

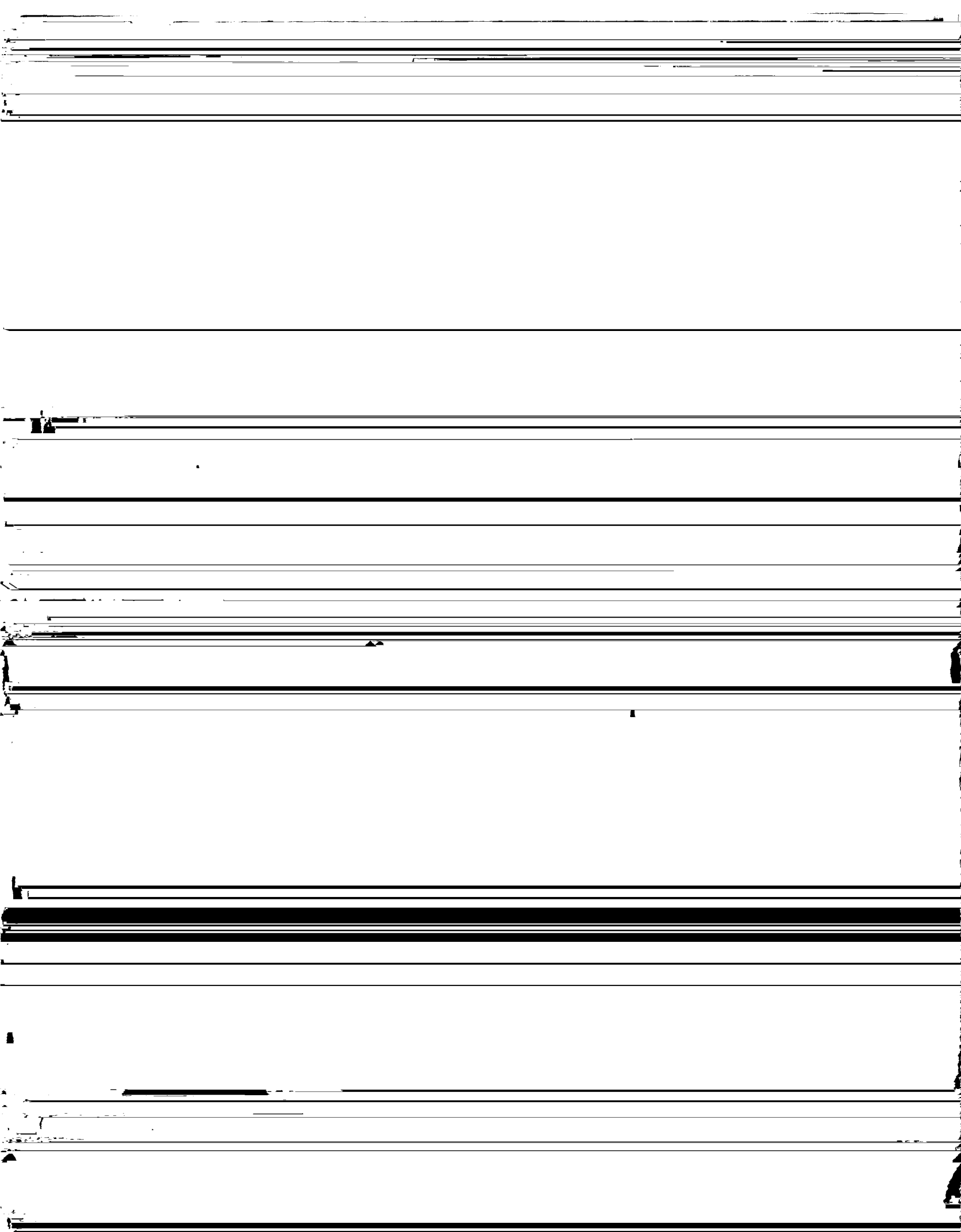
The conclusions and recommendations are those of Ovum Ltd. It should not be assumed that OFTEL necessarily accepts them all or that the recommendations will be implemented precisely as put forward.

Ovum Ltd
7 Rathbone Street
London W1P 1AF

Office of Telecommunications
Export House
50 Ludgate Hill
London EC4M 7JJ

UK national code change

Customer Premises Equipment Implications



Through discussions with users we have also highlighted the indirect costs, such as data entry and planning, associated with changing CPE to work after the code change. We have not studied other indirect costs such as re-printing stationery, re-painting vans and so on.

Almost all products with memory will need new data to be loaded by the user, usually programmed numbers. For many products no other significant changes will be required: fax machines, voice mail systems, modems, cellular phones and memory phones.

In other products new software will also be needed and the effect of this varies. In areas such as telephone information and management systems, where standard computers are used with specialist software, this is a straightforward task. In other areas where specialist hardware is used, mainly in switching products, the task is more complex.

For some types of CPE there will be significant problems. These are mainly the lower value products where there is no flexibility designed in to cope with numbering changes. For these the cost of modifying them is similar to the replacement cost. Within this group, older designs will present more problems because development has ceased and engineers are working on other projects.

Four areas of concern have emerged:

- PABXs, especially small PABX and key systems, also very old PABXs
- alarm systems
- private payphones
- smart sockets and low-cost call barring equipment

In each case there are factors which will mitigate the effects to a certain extent. However, it is in these areas that some equipment will have to be scrapped as a result of the code change. We estimate that the equipment up to a total value of £15m will have to be scrapped.

In doing the study several other important issues became apparent:

- users are concerned that suppliers will either overcharge them for modifying equipment or incur high costs, unique to the NCC, and pass these on

- manufacturers have generally given little thought to the code change; they are all supplying products now which will need to be modified within 2 years

- manufacturers would benefit from knowing the full definition of the S digits 2-9 and how tariffs will be applied within them.

- manufacturers are not clear on why the code change is happening and what benefits it will bring